R4700-9F 2/8/11

The Low-Wage Challenge to Global Growth

The Labor Cost-Productivity Imbalance In Newly Industrialized Countries

Walter Russell Mead

EMBARGOED
HOLD FOR RELEASE
6:30 PM, February 21, 1991

Economic Policy Institute

The Low-Wage Challenge to Global Growth

The Labor Cost-Productivity Imbalance In Newly Industrialized Countries

Walter Russell Mead

Economic Policy Institute

1730 Rhode Island Ave., N.W. Suite 812, Washington, D.C. 20036
ISBN 0-944826-21-0

Walter Russell Mead is a graduate of Yale University. A former high school and college teacher, he is the author of *Mortal Splendor: The American Empire in Transition* (Houghton Mifflin, 1987), a Senior Fellow in International Economics of the World Policy Institute, and a consultant to the Cuomo Commission on Competitiveness and Trade. He is a Contributing Editor of *New Perspectives Quarterly* and his articles on global economic issues appear frequently in the *Los Angeles Times*, the *World Policy Journal*, and other periodicals in the United States and Japan.

Acknowledgements

This paper benefitted from the care and thoughtful attention of many people. Jeff Faux helped get the project off the ground. Larry Mishel, Ron Blackwell, and Robert Blecker contributed their time and expertise. Anetta Goelet and Sharon Stout were helpful as researchers. Steve Beckman, Lou Ferleger, Ray Marshall, Allan Mendelowitz, and Lee Smith reviewed one or more drafts of the manuscript and provided helpful comments. Christopher Mead generously allowed me to draw on his newsletters on international trade. While the author is responsible for any remaining errors of fact or interpretation, the reader can rest assured that there would be many more without the generous help of the above-mentioned colleagues.

Partial support for this project was provided by The Kearny Foundation.

Design and typesetting:
J. Gibson and Company
Wordscape, Inc.

Copyright © 1990
ECONOMIC POLICY INSTITUTE
1730 Rhode Island Avenue, NW
Suite 812
Washington, DC 20036

ISBN 0-944826-21-0

Table of Contents

EXECUTIVE SUMMARY 1

INTRODUCTION 3

THE DEVELOPMENT OF DEVELOPMENT 5

GLOBAL INTEGRATION: EMERGING PATTERNS OF PRODUCTION 7

WAGES AND PRODUCTIVITY 14

THE GAP IN THE SOCIAL WAGE AND WORKING CONDITIONS 22

THE PRODUCTIVITY PROBLEM 25

WILL WAGE GROWTH SOLVE THE PROBLEM? 27

NO LIMITS TO GROWTH 30

CONCLUSION 34

ENDNOTES 40

BIBLIOGRAPHY 45

Executive Summary

The shift of global manufacturing to low-wage economies has been the topic of increasingly heated debate in the 1980s. As more developing countries, sometimes after prodding from the United States and the international financial institutions, shift to strategies of export-led growth, the issue will become more important for particular American industries and for the economy as a whole.

Four propositions have dominated the policy discussions of low-wage manufacturing in developing economies:

- that the relatively low manufacturing wages paid in developing economies reflect the lower levels of productivity achieved by workers in those countries;
- that competition from low-wage countries plays a relatively small role in the overall U.S. trade picture;
- that increased rates of productivity growth in the United States can restore the competitiveness of American-made products *vis-à-vis* the products of low-wage foreign labor;
- that the limits of competition from low-wage labor are already being reached as a variety of factors—including rising wages in the newly industrializing countries, increased emphasis on advanced technology in manufacturing and the adoption of "just in time" inventory methods—are eroding the advantages of low-wage producers.

This study assembles evidence from a variety of sources that casts doubt on all four propositions. Among the highlights of its findings:

- Manufacturing wage differentials between advanced and developing country economies are substantially greater than productivity differentials. Developing countries enjoy significant unit labor cost advantages in a wide variety of industries. Wage differentials are only the tip of the iceberg; differentials in fringe benefits and in the "social wage" between advanced and developing countries are even greater than differentials in productivity.
- Trade with low-wage manufacturing countries plays a large and growing role in the overall U.S. trade deficit. During much of the last decade, low-wage manufacturers have accounted for more of the deterioration in the U.S. balance of trade than has Japan.
- Productivity growth in developing countries is so rapid, and their labor cost advantage is so great, that any conceivable increases in American worker productivity will not close the gap in labor costs in the foreseeable future. If anything, the gap is likely to widen.
- Far from slowing down, the shift of manufacturing to low-wage sites seems to be accelerating. Investment data, surveys of attitudes among corporate executives, and international statistics on output and trade all confirm the increasing importance of low-wage manufacturing in the world economy—and in the American trade deficit.

The study concludes that the labor cost advantages of low-wage producers are likely to result in macroeconomic imbalances between global incomes and production capacity. Continued economic growth in a liberal trading order requires increased consumption and higher

Manufacturing wage differentials between advanced and developing country economies are substantially greater than productivity differentials.

The labor cost advantages of low-wage producers are likely to result in macroeconomic imbalances between global incomes and production capacity.

real wages among the newly productive workers of the developing world. That "balanced growth" of this kind would create new export markets for industries in the advanced countries while expediting growth in the developing world seems clear. The alternative—continued reliance on export-led growth in developing countries and increasing sentiment for protection in the advanced industrial companies—serves the interests of no one and exposes all countries to serious risks.

Continued economic growth in a liberal trading order requires increased consumption and higher real wages among the newly productive workers of the developing world.

Introduction

Within the United States, the fear of ever increasing competition from countries with low wage levels has contributed to growing anxieties among political leaders and the general public. It has weakened sentiment for free trade and raised basic questions about the future course of an increasingly deregulated and competitive global economy.

By and large, however, these fears get little sympathy from most American economists, whose theories deny the possibility that living standards in one country can be undercut by low wages in a trading partner. Thus, for example, Robert Z. Lawrence and Robert E. Litan argue that low-wage competition in foreign countries has had no major impact on the American economy. Low-wage labor not only is no competitive threat now; it will not be a threat to American industry in the future.

> Since wage levels tend to reflect productivity levels, the truth is that the United States, like other high-wage countries, *can* compete with low-wage countries because its superior productivity compensates for higher wage rates. If developing countries had our skills, technology, and capital levels, their wages wouldn't be so low (Lawrence and Litan, 1987, p. 60).

Most American economists . . . deny the possibility that living standards in one country can be undercut by low wages in a trading partner.

This view misses a historic shift in the global economy. Technological change increasingly makes it possible to combine advanced techniques of manufacturing with wage levels characteristic of the developing world. Capital—and therefore technology—is mobile today on an international scale, but labor is not. Capital can move into labor markets with lower wages, but workers cannot move freely across national boundaries to seek work where wage levels are higher.

This view misses a historic shift in the global economy. Technological change increasingly makes it possible to combine advanced techniques of manufacturing with [low] wage levels.

As we will see in the following pages, the combination of low wages and capital investment in developing countries creates a new situation in the world economy, and poses serious questions for policy makers in advanced and developing countries alike. The major portion of this paper shows the nature and the scale of the process now under way. "The Development of Development" reviews the technological changes which have made the global workplace possible. "Global Integration" documents the increasing flows of foreign investment into developing countries and the increasing scale of developing country manufacturing. It traces the development of increasingly sophisticated and capital intensive forms of manufacture in developing countries and documents the impact of these countries on the U.S. balance of trade.

A third section, "Wages and Productivity," shows that, contrary to the view expressed by Lawrence and Litan above, the relationship between wage and productivity levels around the world is a far from simple one. As detailed studies of particular industries and companies as well as national statistics show, wage levels vary significantly more than productivity levels around the world, with some developing countries maintaining significant unit labor cost advantages over developed countries. These costs are important in heavy industry and high-tech as well as in traditional light industries; furthermore, the low-wage costs in

construction help improve the competitiveness of developing countries across the board.

"The Gap in the Social Wage and Working Conditions" marshals the evidence to show that the gap in total worker compensation between advanced and developing countries is even greater than data on wages and salaries suggest. Enormous differentials in fringe benefits, overtime, and the social wage increase the extent to which worker compensation varies more than productivity. The section points to widely accepted evidence of the systematic use of non-market mechanisms including repression of workers in violation of internationally recognized worker rights that help maintain current low-wage structures in some countries.

Enormous differentials in fringe benefits, overtime, and the social wage increase the extent to which worker compensation varies more than productivity.

"The Productivity Problem" argues from the data presented in this paper that increased productivity by U.S. workers at any realistically attainable levels cannot reduce the unit labor cost advantages of developing country producers to any significant degree. The differentials are too large and, in any case, there is little reason to believe that productivity enhancing technologies or management techniques will be restricted in their application to the United States. The paper reviews evidence to support the contrary view that productivity in developing countries will continue to rise faster than in the United States. "Wage Growth No Answer" shows that the current trajectory of wage growth in developing countries is not sufficient to reduce these differentials. In some countries, wages are falling relative to U.S. wages; in other countries, real wages are rising, but productivity is rising faster. In any case, workers in labor surplus developing countries are more vulnerable to economic and political pressures than workers in advanced countries with traditions of democratic representation and where labor rights are strongly protected in law.

The closing section of the main body of the paper, "No Limits to Growth" shows that neither new technologies nor 'just in time' inventory control methods can be expected to halt the shift toward production in developing countries. A variety of studies and polls of industrial decision makers are cited to show that the shift toward low-wage manufacturing is likely to continue well into the future.

The shift to low-wage manufacturing abroad and the loss of export markets due to suppressed demand in developing countries contributes to glutted world markets and to political and economic pressures against open trade.

The conclusion of this paper puts these findings in the context of international trade theory and of ongoing policy debates. It is more speculative and general in nature. It argues that the shift to low-wage manufacturing abroad and the loss of export markets due to suppressed demand in developing countries contributes to glutted world markets and to political and economic pressures against open trade. In developing strategies to avoid the global consequences of large and persistent wage differentials between developed and developing nations priority consideration should be given to the adoption and enforcement to two elements central to any strategy: 1) international labor standards for the production of internationally traded goods and 2) a set of international labor rights—including the prohibition of child labor, a minimum wage appropriate to a nation's development and the right of workers to organize and bargain collectively.

The Development of Development

Significant wage disparities between advanced and developing countries have existed for many years. Until recently, however, geographic, economic, legal and social barriers limited the extent to which workers in these countries could produce manufactured goods for world markets. Since the 1950s, these barriers have begun to come down; the result is a new and more integrated world in which low-wage workers in an expanding number of developing countries are able to participate as producers in the world economy. As these barriers fall, the differences between the wage levels in advanced and developing countries have become a more important factor in the evolving global system of manufacturing and trade.

A global communications industry has transformed the way business is done.

Since the 1960s when Telstar, the first primitive communications satellite, was launched, a global communications industry has transformed the way business is done and has reduced, though not eliminated, the importance of distance in human affairs. In 1960, a one-minute telephone call from the United States to South America or to East Asia cost $4.00. The quality of the connection was unreliable and long waits for lines were common. In terms of labor cost, the cost of one minute of telephone time fell from 90 minutes of labor time of an American production worker to six minutes of his or her time in 1983.[1] Singapore has reduced telex and telephone rates to the United States by almost 70 percent since 1979. Currently, Singapore plans to introduce toll-free international dialing for major corporate customers with overseas headquarters.[2] Thailand has announced a $120 million fiber optics project to modernize its communication system, with completion expected in 1992.[3]

In 1960, international air travel cost 6.35 cents per mile; in 1982, the cost was 10.09 cents—a fifty percent reduction in real terms.[4] Air travel was faster in the 1980s than it had been in the 1960s, with more direct and non-stop flights, faster jets, more first class airports in more destinations, and many more flights scheduled between major cities around the world.

Technological change created the conditions for globalization of production; social and managerial change made it possible to exploit these conditions.

From FAX machines to improvements in air freight and shipping techniques and to the 24-hour global deregulated financial markets which facilitate global production, investment and trade, the world of the late 1980s is not the same as the world over which Telstar first rose. Technological change created the conditions for globalization of production; social and managerial change made it possible to exploit these conditions.

These changes have transformed modern industrial development. The process can be illustrated by the decisions in Korea and Taiwan to follow Japan's lead and to make exports of light industrial consumer goods the starting point of the drive toward industrialization. This strategy capitalized on the strengths of these countries: low-wage labor could be deployed in labor-intensive industries that did not require an enormous initial capital investment, and export earnings could buy new capital goods to increase the scale of industrial production.[5] Man-

agers and operators learned how to run industrial facilities. Many of these lessons (including work discipline, inventory control, and cash management) were transferrable from one industry to another. The result was the gradual development of the "human infrastructure" that could support increasingly sophisticated forms of production.

In 1953, most of Taiwan's exports were agricultural. One crop, sugar, accounted for 67.1 percent of the total value of exports; rice accounted for another 10.6 percent. By 1987, manufactured goods were 90.3 percent of exports and labor intensive industries like textiles and footwear increasingly were being replaced by automotive parts, electrical appliances, electronics and machinery.[6]

In 1953, most of Taiwan's exports were agricultural. . . . By 1987, manufactured goods were 90.3 percent of exports.

In 1962, when Korea started export-oriented development, the per capita income level was close to $100 per year.[7] By 1988, per capita income had grown to $2,000. In 1988, exports represented 40 percent of Gross Domestic Product (GDP) and manufactures represented 95 percent of total exports.[8] Indeed, agricultural commodities and raw materials are a larger proportion of America's exports to Korea than of Korea's exports to the U.S.[9]

When Korea and Taiwan were getting started, the export of technology and the establishment of offshore manufacturing facilities were risky enterprises for all concerned. An infrastructure had to be built, a labor force trained. Multinational corporations and the governments of developing countries had to learn to standardize their relationships and codify them in law. Joint venture agreements, technology transfers, profit repatriation regulations and other issues had to be handled.

With the spectacular successes of export-led growth strategies, other countries began the necessary reforms and restructurings. Companies gained experience and confidence; moving production offshore became routine. Government and industry studied the successes of the rapidly developing export-led economies, identified specific policies that contributed to their success, and both imitated and improved upon existing models.

Global Integration: Emerging Patterns of Production

Developments in communications, technology and management have created the potential for the spread of industrial production beyond the confines of the advanced industrial economies; a review of investment, production and trade data shows that a group of low-wage developing countries have made major quantitative and qualitative strides in the production of goods for export. Evidence from a variety of sources confirms that developing exporters of manufacturers are posting growth rates substantially higher than those of the United States and, in many cases, higher even than those posted by Japan. Developing exporters of manufacturers have gained a substantially increased share of world export markets and they are having a significant and growing impact on the U.S. balance of trade.

Developing exporters of manufacturers are posting growth rates substantially higher than those of the United States and, in many cases, higher even than those posted by Japan.

Foreign Direct Investment

Foreign direct investment increasingly is flowing to Third World countries. In 1962, when Korea was just beginning its turn toward export-oriented development, the book value of foreign capital stock in the country stood at $600,000. In 1970, direct foreign investment had reached $81 million. By 1984, the latest year for which figures are available, the book value of direct foreign investment was at $1.4 billion.[10] In the Philippines, foreign direct investment rose from $122 million in 1970 to $2 billion in 1983.[11] Foreign direct investment in Singapore rose from $1.7 billion in 1970 to roughly $27 billion in 1984.[12]

Not only the amount of direct foreign investment in developing countries increased, but their share increased as well. From 1974 to 1978, the Third World received 31 percent as much foreign investment as the First World; from 1978 to 1983, developing countries received 50 percent as much foreign capital as the advanced countries. From 1974–78 the Third World (Asia/Pacific, Africa, and the Latin America/Caribbean region) received 56 percent as much foreign investment as Europe; in the next five years the total direct foreign investment flowing into these countries was equal to 77.7 percent of Europe's total.[13] The World Bank estimates that between 25 percent and 30 percent of the world's total stock of foreign direct investment is found in the Third World, and 40 percent of this is believed to be in manufacturing.[14]

Foreign investment is moving into new and more sophisticated industrial sectors.

Foreign investment is moving into new and more sophisticated industrial sectors. From 1981 to 1984, foreign investment in the Hong Kong textile industry fell $4 million, while increasing by $96 million in electrical equipment manufacturing.[15] In Korea, foreign investment also shifted. Between 1973 and 1983, foreign investment in textiles rose five percent per year, while in the chemical, transport and mechanical engineering sectors, growth rates of better than 20 percent were posted.[16] By 1990, electronics is expected to overtake textiles as Korea's largest export earner.

As wages rise in the countries where industrialization has proceeded farthest, a new phenomenon has appeared: outsourcing by companies based in Newly Industrialized Countries (NICs). Hong Kong companies have responded to the labor shortage in that city by developing plants in mainland China.[17] In 1986, Korean investors established 12 factories in the Caribbean basin to take advantage of low wages and favorable terms of entry to the U.S. market. Others are expected to follow.[18]

Increasingly, companies seeking to relocate in low-wage countries are moving in groups, opening industrial parks together and negotiating jointly with the host government. In some cases, these associations of companies are from First World countries like Japan, and in others, they are from Third World countries seeking even lower wage rates than they can get in their domestic markets.[19] A group of up to 40 high-tech manufacturers from Taiwan plans to set up a high-tech assembly plant in Thailand.[20] A group of 35 Hong Kong semiconductor makers has announced plans to open a "Silicon Valley" in mainland China.[21]

A new phenomenon has appeared: outsourcing by companies based in Newly Industrialized Countries.

Manufacturing Production and Exports

The shift in investment has been accompanied by a shift in the patterns of production. The World Bank identifies a group of countries called "developing exporters of manufactures."[22] Since 1965 these countries experienced faster growth than the industrial market economies and the overall developing world (Table 1). As a group, these countries grew faster than Japan.

Table 1

Growth Rates By Country Group
Average Annual Growth Rates (Percent)

	GDP		Industry	
	1965–80	1980–86	1965–80	1980–86
Industrial Market Economies	3.6	2.5	3.2	2.5
Japan	6.3	3.7	8.5	5.0
All Developing Economies	6.1	3.8	7.2	4.6
Low-Income	4.8	7.5	7.5	10.6
China and India	5.3	8.6	8.0	11.3
Other Low-Income	3.1	2.9	4.6	4.2
Middle-Income	6.6	2.3	7.0	2.1
Exporters of Manufacturers	6.6	6.2	8.9	7.8

Source: World Bank (1988), pp. 224-225.

The fast growth of industrial production in certain developing countries has resulted in a significant expansion of their share of global industrial production and manufacturing exports (Table 2). For instance, from 1965 to 1973, the "middle income" developing countries (a group larger than developing exporters of manufacturers and for whom there

are export share data) saw their share of total world manufactured exports increased from 5 percent to 8.1 percent. By 1985, they reached 15.3 percent—a more than 300 percent increase.[23] Middle-income developing countries' share of manufactured exports grew faster than their share of manufacturing production between 1965 and 1985 (which rose from 7 to 11.2 percent). Their increased industrial production therefore has been fueled by their ability to export manufactured goods. By 1986, the total manufactured exports from middle-income developing countries were larger than manufactured exports from the United States ($180.6 versus $162.8 billion).

Table 2

Growth of Manufacturing Export Volume, 1965-87
Average Annual Change in Export Volume (Percent)

	1965–73	1973–80	1980–84	1985	1986*
Industrial Market Economies	9.4	5.4	2.5	4.2	1.9
All Developing Economies	11.6	13.8	9.5	3.3	4.9
Low-Income	2.4	8.2	9.6	0.7	15.0
Middle-Income	14.9	14.8	9.4	3.6	3.5
Exporters of Manufactures	11.6	14.0	10.2	2.8	7.8

*Estimated by World Bank

Source: World Bank (1988), p. 191.

Much of the growth in developing country manufactured exports can be attributed to a few countries. For instance, the seven developing countries listed in Table 3 accounted for 85 percent of the total growth of manufactured exports among the category "exporters of manufactures" and 71 percent of the total growth of manufactured exports from developing countries as a whole. As Table 3 shows, manufactured exports from Brazil, Korea, and Taiwan grew more than twice as fast as those originating from the U.S.

Much of the growth in developing country manufactured exports can be attributed to a few countries.

Table 3

Selected Countries Manufactured Exports and Growth Rates

	Manufactured Exports (billions) 1986	Export (Annual Rates) 1965–86
Industrial Market Economies	$1,151.1	13.1%
United States	162.8	11.1
Japan	203.9	16.9
All Developing Economies	214.3	16.9
Exporters of Manufactures	177.5	17.5
Mexico	4.9	16.5
Brazil	9.1	24.0
Hong Kong	32.6	18.0
Korea	31.9	31.6
Singapore	14.7	20.4
Taiwan	35.9	28.0
China	20.0	15.3

Source: World Bank (1988), pp.248–249

One factor in the growth of manufacturing in developing countries has been the decisions of U.S.-based multinational corporations to locate manufacturing facilities in developing economies.

In 1965, no developing economies were among the world's top 30 exporters. In 1985, four developing economies (Hong Kong, Korea, Singapore and Brazil) were among the top 20 exporters. Hong Kong and Korea exported nearly as much as Sweden and Switzerland.[24]

One factor in the growth of manufacturing in developing countries has been the decisions of U.S.-based multinational corporations to locate manufacturing facilities in developing economies. Offshore assembly operations have grown from four percent of total U.S. imports in the early 1960s to almost ten percent more recently.[25] Offshore assembly for export to the U.S. employs two million people, ten percent of total U.S. manufacturing employment. The annual output of these operations increased 50 percent in the 1980s[26] and now amounts to $15 billion.

Effect on U.S. Manufacturing Trade

Table 4 compares the percentage increases in U.S. manufactured imports from developed and developing countries between 1980 and 1988. Manufactured imports from developing countries grew 240 percent between 1980 and 1988, two-thirds faster than developed country manufactured imports. Japanese manufactured imports grew faster than average but still grew only 70 percent as quickly as manufactured imports from the Asian NICs.

Table 4

Increase in U.S. Manufactured Imports by Country and Region of Origin 1980–1988

Place of Origin	Percent Increase 1980–88
Total World	170
Developed World	143
Japan	184
EEC	134
Developing World	240
Mexico	296
Brazil	338
Hong Kong	116
Korea	386
Singapore	342
Taiwan	262
China	915
Asian NICs*	259

*Hong Kong, Singapore, Taiwan, and Korea

Source: Mishel and Stout (1989), Table 3.

Increased manufactured imports from the Third World have played a significant role in the deterioration of our manufacturing trade balance.

Increased manufactured imports from the Third World have played a significant role in the deterioration of our manufacturing trade balance. The developing world accounted for 41.6 percent of the deterioration in the U.S. balance of trade between 1980 and 1988 (Table 5). In the most recent years for which figures are available (1985–88), trade with the developing world was responsible for 80.2 percent of the $17.5 billion deterioration in the manufacturing trade balance.[47]

Table 5

Share of Difference in U.S. Manufactured Trade Balance,* By Country and Region

	1980–88	1980–85	1985–88
Developed World	54.8%	63.7%	−8.0%
Japan	33.3	28.9	64.0
EEC	16.8	24.1	−34.7
Developing World	41.6	36.2	80.2
Mexico	5.5	4.6	11.8
Brazil	3.2	3.5	1.2
Hong Kong	2.2	3.1	−4.7
Korea	8.2	3.9	38.2
Singapore	2.5	1.5	9.8
Taiwan	8.7	8.2	12.7
China	3.5	0.1	27.5
Asian NICs	21.6	16.7	56.0
Manufacturing Trade Balance*	−$141.0	−$123.6	−$17.5

*Difference in manufacturing trade balance in each country or region divided by the total difference.

Source: Mishel and Stout (1989), Table 6.

A particular group of countries (listed in Table 5) were primarily responsible for the growing manufacturing trade imbalance with developing countries. From 1985 to 1988, Korea and Taiwan, with half Japan's population and one-tenth of its GNP, were responsible for almost as much of the deterioration of the U.S. trade balance as Japan was. China alone was responsible for 27.5 percent.

Upscaling Production

Developing countries have done more than step up total exports; they have changed the type of goods exported.

Developing countries have done more than step up total exports; they have changed the type of goods exported. In 1986, the balance tipped: developing countries earned more from their exports of manufactured goods than from their exports of agricultural goods and mining. Moreover, the share of developing world manufactured goods from the traditional labor-intensive sector fell from 41.2 percent in 1970 to 33.5 percent in 1984.[28]

Table 6 illustrates the changing composition of merchandise exports from selected countries and from developing exporters of manufactures as a whole. Although patterns vary among countries (in Mexico, for example the development of its oil industries led to a large increase in the "fuels, metals and minerals" category), the overall trend remains clear: a shift away from raw materials and toward relatively sophisticated manufactured exports.

Table 6

Percentage Share of Merchandise Exports by Sector, 1965 and 1985

	Fuels, Metals, and Minerals		Other Primary Commodities		Machinery & Transport Equipment		Textiles & Clothes	
	1965	1985	1965	1985	1965	1985	1965	1985
Brazil	9	15	63	44	2	14	1	3
Malaysia	35	34	59	39	2	19	–	3
Mexico	22	64	62	9	1	16	3	1
Korea	15	4	25	5	3	36	27	23
Hong Kong	2	2	11	6	6	24	43	32
Exporters of Manufactures	9	13	40	17	11	23	18	17

Source: World Bank (1987), p. 223.

The trend toward new types of exports shows up in many industries and countries. For example, the East Asian NICs achieved substantial gains in the U.S. market for color televisions and related products between 1985 and 1986, while Japan's share of this important market was either stable or shrinking: while Japan's exports of color TVs to the U.S. fell 4.4 percent, the NICS posted a 49 percent increase. Exports of television tubes from the NICs to the U.S. rose 62.7 percent, and VCR exports rose 39 percent.[29] In 1987, Korea became the third country

after the United States and Japan, to produce one megabyte dynamic random access memory (DRAM) chips.[30]

Developing countries are beginning to crack the auto industry market, by shipping either completed units or parts. A United States International Trade Commission (USITC) study of competitiveness in the auto parts industry found 200 firms in Brazil that made automobile parts for export; they increased their exports from $700 million in 1982 to $1.5 billion in 1986.[31] In 1982 Korea built 162,000 vehicles and exported 15 percent. In 1986, it built 601,000 vehicles; more than 50 percent were exported. Korea's exports of auto parts rose from $68 million in 1982 to $247 million in 1986.[32] Projections for 1990 show an estimated $650 million worth of auto parts exports.[33]

Developing countries are beginning to crack the auto industry market.

Mexico has become a major producer of auto parts for the international market, particularly after Mexico's domestic demand for automobiles declined in the 1980s. Total production of auto parts fell in Mexico during the 1980s, but exports increased.[34] In 1984, Mexico exported 700,000 automobile engines; within three years, it had the capacity to export 1.6 million.[35] General Motors announced plans to double its work force of 35,000 in Mexico between 1987 and 1992, even as it continued to lay off U.S. workers.[36] Expansion plans by American Big Three car makers will increase Mexico's capacity to export cars to the American market to 350,000 units by the early 1990s.[37] Already, Chrysler Mexico with $1.2 billion in annual exports is that country's second-largest exporter, trailing only PEMEX, the state owned oil company.

Taiwan's exports of automobile parts rose 145 percent to $710 million per year from 1983 to 1986. In 1983, exports represented 48 percent of Taiwan's auto parts production; in 1986 exports accounted for 92 percent of production.[38] Mitsubishi is currently exploring ways to produce cars for the U.S. market in Thailand. The cars would be assembled in Thailand from parts made in Malaysia and the Philippines.[39]

In other high-tech, growing industries, developing countries have served notice that they intend to participate in a major way. Singapore makes almost 60 percent of the hard disks used in American computers. Singapore already produces one megabyte DRAM computer chips, and will inaugurate production of state-of-the-art four megabyte chips in 1989.[40] Korea and Taiwan have laid the foundations for an export-oriented fiber optics industry.[41] A joint effort involving Japan, Singapore, Indonesia and other Asian countries will be producing jets with a capacity of 75 passengers by the mid-1990s.[42] Singapore's aircraft systems and equipment sales have already grown from $23.5 million in 1977 to $397.5 million in 1987 and are expected to pass $500 million in the 1990s.[43] A Taiwanese science park in Hsinchu, opened in 1980, generated $3 million in exports in its first year.[44] By 1985, it was responsible for $350 million of exports with $10 billion projected for 1995.[45]

In other high-tech, growing industries, developing countries have served notice that they intend to participate in a major way.

Wages and Productivity

Aggregate shifts in manufacturing production of the magnitudes reported above (coupled with the available evidence of shifts to more capital-intensive industries and leading edge technologies) present convincing evidence of sophisticated industrial development in some developing Third World countries. They, in turn, are beginning to move production "offshore."

As noted, some observers argue that high-wage countries *can* compete with low-wage countries because their superior productivity compensates for higher wage rates.[10] If so, then the low wages earned by workers in the developing countries do not provide a competitive advantage.

Low wages in themselves have little effect on world trade . . . however, . . . the union of low wages and capital investment can very quickly create significant unit labor cost advantages.

Lawrence and Litan are correct to argue that low wages in themselves have little effect on world trade. It is incorrect, however, to ignore the fact that the union of low wages and capital investment can very quickly create significant unit labor cost advantages in developing countries. As the following section shows, while productivity is lower, in general, in developing countries than in the United States, the productivity differentials between industrial market economies and developing countries are significantly smaller than their wage differentials. Unit labor costs (defined as wage costs per unit of output) are therefore lower in many developing economies than in advanced market economies. This is true not only for "traditional" labor-intensive industries like textiles and footwear, but for higher value-added industries as well. In some cases, relative unit labor cost differentials are greater for high-tech industries and plants than for traditional industrial sectors.

The Wage Gap

The productivity differentials between industrial market economies and developing countries are significantly smaller than their wage differentials.

There is no doubt that workers in developing countries are paid far less than U.S. workers. Bureau of Labor Statistics (BLS) data, for instance, show that hourly compensation costs for workers in major exporting countries are less than one-fifth of U.S. levels (Table 7). Furthermore, while wage levels in some countries rose relative to U.S. levels, in other countries they fell between 1975 and 1988.

Table 7

Hourly Compensation Costs in Manufacturing as a Percentage of U.S. Costs

	1975	1980	1988
Brazil	14	14	11
Hong Kong	12	15	17
Korea	5	10	18
Mexico	31	30	12
Singapore	13	15	19
Sri Lanka	4	2	2
Taiwan	6	10	19
United States	100	100	100

Source: Bureau of Labor Statistics (1989), p. 3.

The Productivity Gap

These wage differentials, though large, would not raise issues of competitiveness if they reflected, as Lawrence and Litan assert that they do, productivity differentials between workers in different countries. In such a case, unit labor costs would not vary significantly between countries and would not be a significant source of competitive advantage in manufacturing. Lawrence and Litan do not bring any evidence forward to support their view. The evidence we have found, which includes comparisons at the plant to plant, industry to industry and sector to sector levels, tells a different story. Productivity differentials do not fully account for wage differentials in many industries and countries—far from it. Unit labor costs are significantly lower in a broad range of industries in a broad range of developing countries than in either the United States or in other advanced industrial economies.

A study of international labor costs in mens' shirts by Dr. Imre Bernolak for the Asian Productivity Organization illustrates the basic pattern found not only in textiles, but throughout industry. Productivity *is* higher in the United States, but not at or even near levels that offset the wage differential.

Productivity is higher in the United States, but not at or even near levels that offset the wage differential.

Table 8

Comparative Labor Costs in Shirt Making

	Wage Per Hour ($U.S.)	Person Minutes Required to Make One Men's Shirt	Wage Cost Per Men's Shirt ($U.S.)
U.S.	7.53	14	1.76
Hong Kong	1.40	20	0.46
South Korea	1.53	21	0.53
Sri Lanka	0.35	24	0.14
India	0.40	23	0.15
Bangladesh	0.25	25	0.10

Source: Bernolak, unpublished.

American shirtmakers are slightly less than twice as productive as their colleagues in Bangladesh, but their wages are 17 times as high.

American shirtmakers are slightly less than twice as productive as their colleagues in Bangladesh, but their wages are 17 times as high. To reduce the labor cost per shirt to the level of the lowest-cost producer—in this case, Bangladesh—wages in the United States textile industry would have to fall to $0.45 an hour. Alternatively, to raise productivity levels high enough to match Bangladesh's unit labor cost of ten cents per shirt, American shirtmakers would have to post a 900 percent productivity gain, reducing the time required per shirt to 1.42 minutes.

A series of studies on international competitiveness by the United States International Trade Commission has made this point with respect to a number of industries from food processing to auto parts. Their study of the textile industry confirms Dr. Bernolak's observation. While unit labor costs were higher in Italy and Japan than in the United States,

they were 42 percent of U.S. costs in Hong Kong and Korea, 51 percent in Taiwan, and from 13 percent to 20 percent in mainland China.[47]

The situation is not limited to light-assembly industries such as textiles. U.S. steelworkers are the most productive in the world. In 1987 it took, on average, 3.4 man hours to produce one metric ton of hot rolled steel in the United States, 4.0 hours in Canada, 5.4 hours in Korea, and 5.8 hours in Brazil.[48] Yet wage differentials were so much greater that unit labor costs in other countries were only a fraction of the cost here (Table 9).

The higher productivity of U.S. workers does not overcome the disadvantage of higher wage costs [in steel].

Table 9

Level of Compensation, Productivity and Unit Labor Costs in Iron and Steel Manufacturing
(All figures as percentage of U.S. levels)

	Level of Compensation	Productivity	Unit Labor Cost
U.S.	100.0	100.0	100.0
Brazil	10.1	58.6	17.2
Korea	10.3	63.0	16.3
France	56.2	77.4	76.6
West Germany	68.8	89.5	76.9
Canada	69.0	85.0	81.2
Japan	72.2	87.2	82.8

Source: U.S. International Trade Commission (1988b), p. 12-9.

Table 10 shows the cost structure of cold rolled steel production by country. Labor cost differentials account for a significant portion of the total cost of production, and the higher productivity of U.S. workers does not overcome the disadvantage of higher wage costs. As Table 10 shows, the labor cost of more-productive U.S. workers is approximately five times greater than the cost of Korean and Brazilian labor per metric ton of cold rolled coil.

Table 10

Comparative Operating Costs for Cold Rolled Coil Operations of Certain Integrated Producers (1985)

($U.S. per metric ton)

	United States	West Germany	Japan	South Korea	Brazil
Labor	129	70	63	25	26
Iron Ore	67	47	44	48	24
Scrap	18	11	0	0	0
Coal or Coke	50	48	52	55	58
Other Energy	24	22	15	24	27
Miscellaneous	115	126	112	118	129
Total Cost	403	324	286	270	274

Source: U.S.International Trade Commission (1988b), p. 5-9.

POSCO's steel plant in Kwangyang, Korea is considered by many to be the world's most advanced steel mill. Workers there earn one-third the income of Japanese steel workers, and they are more productive. From 1975 to 1986, raw steel production per employee rose 38 percent in Japan, 83 percent in the United States, 76 percent in France—and 266 percent in Korea.[49]

Not surprisingly, from 1975 to 1986 employment in steel making rose in Brazil (44 percent) and Korea (97 percent), and fell in the United States (–62 percent), France (–53 percent), Germany (–36 percent), Japan (–23 percent) and Canada (–12 percent).[50]

There is no inherent reason why workers and managers in newly industrializing countries cannot reach the same level of productivity found in the industrial market economies. A study of 30 plants around the world owned by a single company using essentially the same equipment to produce the same types of goods found no significant difference in the levels of productivity reached in Asian, European, or North American plants (Mefford, 1986, pp. 63–90).[51] The most important factor was the quality of management in a given plant, not location. If management scored well on normal management indicators, productivity was likely to be high.

A recent case study of automobile engine production in the U.S., Mexico, and Canada shows that "sophisticated manufacturing can be readily transferred to a newly industrializing country in a relatively short period of time." This finding is significant because of the economic importance of the automobile industry and because engine production is among the most sophisticated manufacturing processes in the auto industry.

An analysis of plant performance (Table 11) in 1985 shows the Mexican plant performing at 80 percent of the efficiency of the U.S. facility. According to Shaiken,[52] on the four most important machining lines—the head, block, camshaft and crankshaft—the Mexican machine yield

POSCO's steel plant in Kwangyang, Korea is considered by many to be the world's most advanced steel mill. Workers there earn one-third the income of Japanese steel workers, and they are more productive.

There is no inherent reason why workers and managers in newly industrializing countries cannot reach the same level of productivity found in the industrial market economies.

is 85 percent of that obtained by the U.S. plant. In terms of overall labor productivity, the Mexican plant is 75 percent as productive as the U.S. plant. Yet, Mexican hourly labor costs of $1.50/hour are just six percent of the $25/hour labor costs in the U.S.

Table 11

Comparative Engine Plant Efficiency
1985 Machine Yield
(U.S. Engine 1985 Average on Each Line = 100)

Machining Line	Mexico (as of 9/30 or 10/31)	U.S. (as of 7/1 except as noted)	Canada, V-6 (as of 8/31 except as noted)
Crankshaft	71	100[c]	81
	(10)[b]	(5)	(0)
Cylinder Block	94	100	105
	(29)	(0)	(0)
Camshaft	61	100[c]	79
	(−6)	(1)	(−3)
Cylinder Head	115	100	107
	(26)	(3)	(−4)
Intake Manifold	80	100[c]	94
	(35)	(27)	NA
Piston	63	100	104
	(45)	(4)	NA
Unweighted Average	80	100	95
	(21)	(6)	NA
Average Weighted by Capital Cost	81	100	92
	(18)	(4)	NA

[a] The North American version of this part is machined at a plant other than the one that makes the rest of the engine.
[b] Numbers in parentheses indicate the percentage improvement over performance in 1984, to the nearest whole percentage point.
[c] The remaining machining lines are not ordered by value added.
[d] Year-to-date average as of November 1, 1985.
Source: Compiled from company figures (Shaiken, 1988, Table 2).

Wage levels, compared to productivity levels, are [systematically and generally] lower in the developing world than in advanced countries.

United Nations (UN) data on wages and output[53] allow us to compare labor costs as a percentage of output in developing and developed countries. The results show systematically and generally that wage levels, compared to productivity levels (even controlling for industry at the three-digit level of industrial classification), are lower in the developing world than in advanced countries. Table 12 shows the percentage of total output represented by wages and salaries in seven countries: Bangladesh, Chile, the Dominican Republic, West Germany, Japan, Korea, and the United States.

Table 12

Percentage of Wages in Total Output

Industry	Bangladesh	Chile	Dominican Republic	Fed. Rep. of Germany	Japan	Korea	U.S.
Food Products	6.6%	7.0%	12.1%	9.0%	10.6%	6.1%	9.0%
Beverages	6.7	9.0	5.3	14.2	5.9	7.2	11.2
Tobacco	3.1	2.0	4.9	4.1		3.0	7.4
Textiles	21.7	12.8	12.9	20.1	17.1	12.5	19.0
Spinning, Weaving, etc.	22.5	12.7	26.5		17.2	12.0	19.9
Wearing Apparel	11.7	12.5	16.7	21.5	26.6	17.8	22.6
Leather and Products	1.9	7.4	7.0	18.0	16.2	8.8	21.1
Footwear	6.5	13.6	13.8	20.5	18.1	15.5	22.8
Wood Products	17.2	9.9	4.4	23.5	17.4	11.6	19.6
Furniture, Fixtures	11.9	15.0	18.2		19.7	16.5	25.7
Paper and Products	8.4	5.4	10.8	16.3	11.7	7.9	16.4
Pulp, Paper, etc.	8.4	5.0	14.1	13.6	9.3	6.6	16.6
Printing, Publishing	18.2	16.7	18.2	28.9	22.6	16.7	25.1
Industrial Chemicals	5.5	8.2	9.4	16.1	71.8	4.0	11.3
Basic Excl Fertilizers	18.3	10.6	11.0		67.9	2.9	11.8
Synthetic Resins, etc.	7.7	4.9	7.7		76.8	3.5	11.6
Other Chemical Products	11.7	13.6	13.3		10.2	8.6	13.2
Drugs and Medicines	13.2	19.8	14.5		11.0	10.0	15.0
Petroleum Refineries	5	1.0	.9	1.7	1.1	.5	1.8
Petroleum, Coal Products	.3	8.6			4.6	4.2	9.1
Rubber Products	15.1	9.9	14.5	24.2	17.2	15.9	21.8
Plastic Products N.E.C.	10.7	10.9	13.8	22.0	13.9	9.5	20.1
Pottery, China, etc.	12.4	19.2	32.3	39.6	24.9	25.9	32.5
Glass and Products	9.6	12.2	18.2	25.2	14.5	12.5	23.7
Non-metal Products N.E.C.	4.7	9.3	11.0	22.9	15.4	9.7	19.2
Iron and Steel	8.5	8.7	7.6	19.7	10.1	5.3	20.9
Non-ferrous Metals		2.7	11.5	14.8	9.2	7.9	15.5
Metal Products	10.8	12.6	9.5	26.3	18.9	15.6	23.0
Machinery N.E.C.	9.9	33.9	9.7	26.2	16.7	13.9	23.7
Office, Computing, etc.				29.1	10.7	12.2	19.8
Electrical Machinery	7.0	18.9	9.6	25.4	13.2	9.7	25.2
Radio, Television, etc.	13.2	10.5	20.5		11.9	8.1	27.4
Transport Equipment	12.3	11.2		21.2	11.1	10.9	18.4
Shipbuilding, Repair	18.3	22.8		24.8	17.1	12.0	32.0
Motor Vehicles	7.7	6.6			10.1	9.6	13.5
Professional Goods		15.6	6.4	29.8	19.1	14.8	23.9
Other Industries	3.4	18.8	5.9	25.7	16.3	18.2	21.9
Manufacturing	10.5	7.0	9.7	19.1	12.9	9.1	17.4

Source: Handbook of Industrial Statistics

These data paint a remarkably consistent picture.

In general, these data paint a remarkably consistent picture. Germany spends the highest percentage of total output on wages and salaries—19 percent. It is followed by the United States at 17 percent, Japan at slightly under 13 percent, while the developing economies come in anywhere from 10.51 percent in the case of Bangladesh to 7.04 percent in the case of Chile.

The percentage of output going to labor costs in Bangladesh—and probably in other developing countries also—is arguably overstated because output is usually measured in these tables in producer prices. In the case of Third World based producers who sell their products to

an international marketer or multinational, producer prices are held disproportionately low. Herman Starobin testified to the Senate Finance Committee that in Bangladesh a local plant was paid the equivalent of $2.25 per shirt, but the shirt was packaged with a price tag of $16 reflecting its ultimate market price in the United States.[54] Similarly, subcontractors in developing countries receive low producers' prices for goods whose ultimate destination will be the marketplace of the advanced countries. If output were priced at developed world destination prices, the percentage of labor costs as a share of output in developing countries would be even smaller, and the differentials in such shares between developing and developed countries would be even greater.

If output were priced at developed world destination prices, the percentage of labor costs as a share of output in developing countries would be even smaller.

Other researchers have also pointed out a large unit labor cost gap. Former U.S. Secretary of Labor Ray Marshall found that in 1980 wages in the developing countries of the Southern Hemisphere were 25 percent of the wages in the advanced North, while southern productivity was 65 percent of northern levels. The result was that unit labor costs in the South were only 63 percent of those in the North.[55]

Table 13

Korean Manufacturing Compensation, Output and Unit Labor Costs Relative to the U.S.

	Compensation Per Hour*	Output Per Hour**	Unit Labor Costs
1987	12.6%	27.2%	46.5%
1986	10.5	24.2	43.1
1985	10.1	23.0	44.6
1984	10.2	20.7	49.1
1983	9.9	17.6	56.6
1982	9.7	17.9	54.2
1981	9.8	19.0	51.7
1980	10.3	16.0	63.9
1979	11.8	15.3	75.9
1978	9.7	13.3	73.2
1977	7.8	10.8	73.5
1976	6.4	9.1	68.9
1975	5.3	12.4	44.1

* = current U.S. dollars

** = 1980 U.S. dollars

Source: Hooper and Larin (1989), pp. 10, 15, 17.

A recent study by Federal Reserve Board economists Peter Hooper and Kathryn Larin[56] demonstrates the competitive advantage of Korean manufacturing in terms of unit labor costs (Table 13). Even though Korean productivity (output per hour) in 1987 was just 27 percent of that of the U.S., Korean unit labor costs were less than half that of U.S. manufacturing because of the enormous gap in compensation levels between the two countries. Moreover, despite the fact that Korean compensation has grown more rapidly than U.S. compensation in the 1980s, the Korean unit labor cost advantage has expanded tremendously because Korea's explosive productivity growth has far outpaced that of the U.S.

The Korean unit labor cost advantage has expanded tremendously because Korea's explosive productivity growth has far outpaced that of the U.S.

The Gap in the Social Wage and Working Conditions

The statistics on wages, striking as they are, do not fully describe the differences in compensation between workers in the advanced countries and those in the developing world. A study for an association of German employers compared direct and indirect wages in West Germany and eight East Asian producers (Table 14). The non-salary hourly costs were significantly lower in both real terms and as a percentage of hourly wages in the developing countries.

Benefit levels in these Asian countries are substantially lower. The effect is to exacerbate the difference in unit labor cost.

Table 14

Comparative Labor Costs in Nine Countries

	Normal Work Week (In Hours)	Hours Worked Per Year	Paid Days Off	Hourly Wage (In DM)	Benefits As %age Of Hourly Wage
Germany	40	1635	41	15.25	79.8%
Singapore	44	2100	21	3.71	52.0%
Malaysia	48	2280	24	2.90	30.0%
Indonesia	40	N/A	22	0.55	30.0%
Thailand	48	2290	25	0.95	20.0%
Philippines	48	2360	20	0.97	25.0%
Hong Kong	48	2350	20	2.95	20.0%
South Korea	48	2290	31	2.81	29.0%
Taiwan	48	2330	21	4.00	18.0%

Source: Salowsky (1986), p. 3.

Even if wage levels were comparable (and they are not), benefit levels, measured as a percentage of hourly wages in gross terms, in these Asian countries are substantially lower. The effect is to exacerbate the difference in unit labor cost.

In addition to direct wages, benefits and direct payroll taxes (such as Social Security in the United States), governments supply benefits to their citizens and finance these benefits through taxes. While it is difficult to quantify the cost of the "social wage" for individual employers, the order-of-magnitude differences between the social wage levels in various countries are strikingly large.

One indication is the large gap in social spending. Clearly, high-income countries can afford to spend more per citizen than low-income countries. However, the percentage of GDP spent by government on social services tends to be lower in developing than in developed countries. Table 15 compares both per capita spending and the percentage of GDP spent by central governments on housing, welfare and other social spending in eight countries.

Table 15

Central Government Social Spending

	GNP Per Capita ($ U.S.)	Social Spending As: Share of GNP	Social Spending As: Per Capita
Indonesia	$ 530	0.3	$ 2
Thailand	800	4.6	37
Turkey	1080	3.6	39
Brazil	1640	6.9	113
Mexico	2080	3.0	62
Korea	2150	6.7	144
Singapore	7420	6.5	482
West Germany	10,940	15.5	1696
Sweden	11,890	23.3	2770
United States*	16,690	7.7	1285

*Spending on Housing, Welfare, and Social Security in 1985.
Source: World Bank (1987), pp.222-223 and 266-267

Workers in developing countries are denied benefits taken for granted in the advanced countries.

There are enormous and disproportionate differences between social services available to citizens of different countries. Comprehensive studies show large, systematic differentials in such matters as unemployment compensation, worker's compensation in the event of injury, and so on.[57] In 1988, for example, Korea enacted its first national pension plan, a program comparable to U.S. Social Security, though not as generous. Under the plan, the first workers to be covered are those who retire in 2008.

Workers in developing countries are denied benefits taken for granted in the advanced countries. *The Economist* magazine stated Korea's prosperity "has been built, in a way that Victorian England's Mayhew could recognize, on human suffering." The fatality rate in industrial accidents is three times the level prevailing in the United States, and three percent of industrial workers are injured on the job each year.

The former CEO of RCA, with almost 10,000 manufacturing employees in Taiwan, has described the system that induced RCA to transfer increasing amounts of manufacturing to Taiwan:

> Young girls on the farms and in the barrios are willing, and indeed anxious, to come to the factories; to live at the factories in dormitories; to spend four, five, six years there at the cash wage of sixty to seventy cents an hour; to get their food at the factory cafeterias; to get their entertainment and their education there, such as it is; to go home very seldom because of the lack of transportation facilities; to save their money; and then at the end of six years, to go back to their villages with their dowries. There is no comparable system in the state of Indiana.[58]

Hours are longer, and holidays fewer in developing countries. In Korea, some factory workers average two days off per month. In Sri Lanka, the "normal" work year in the textile industry has 292 working days (compared to 245 in the United States and 208 in Belgium); the overtime premium is 5 percent of hourly pay, compared to 50 percent in the United States. In Taiwan, there are 312 working days in the working year. The normal work week has 48 hours and overtime premiums, when paid at all, are 26 percent for week day overtime.[59]

In Thailand, children from agricultural areas are recruited by employment agents who make advance payment to their families and these children end up working in factories and brothels where, according to many observers, their low pay has little to do with classic market mechanisms. In Morocco, children as young as seven years old work in oriental carpet factories where their small fingers are better able to tie the thousands of knots required for these expensive, highly prized pieces. Their pay is based on illegal labor contracts which bind them to an adult supervisor.[60]

Human rights groups, journalists, and trade unionists, have documented widespread, systematic violations of internationally recognized worker rights in developing countries.

Human rights groups, journalists, and trade unionists, have documented widespread, systematic violations of internationally recognized worker rights in developing countries.[61] *The Wall Street Journal* has placed the number of trade unionists killed in El Salvador between 1979 and 1981 at 5,000.[62] It would come as a surprise to many workers in developing countries that learned American economists attribute their low wages simply to low skill, technology and capital levels.

The Productivity Problem

Productivity doesn't compensate for these differentials in wages and working conditions and increases in labor productivity by themselves are unlikely to remedy the weakened competitive position of industry in the United States and other high wage countries in the future. Developing countries have posted continuously higher productivity gains than the United States, and they are likely to do so for the foreseeable future.

The rate of productivity increase in Third World manufacturing depends largely on the rate of application of known managerial and industrial techniques. RCA's former CEO Terry Bradshaw emphasizes that his company's expansion to Taiwan has developed through technology transfer:

> We used to think that the nation that had the technology had all the advantages, but technology is extremely easy to transfer . . . and the proof is that of RCA's almost 10,000 employees in Taiwan, there are only 17 Americans, and they are liaison. All the rest are Taiwanese.[63]

In software development, it is also possible to rely on indigenous talent. In 1988, Nixdorf Computer of West Germany opened software development facilities in Malaysia. The plant employs three software specialists sent from West Germany and between 50 and 100 locally-trained engineers. Salary costs for graduate software engineers in Malaysia are 20 percent of West German levels, and the Malaysian plant is only the first in what Nixdorf expects will be a series of Asian software development facilities.[64]

Advanced industrial economies can make some gains by modernizing their plants, but because their level of industrial development is higher, there are not so many gains to be made. Productivity increases in the advanced countries will be determined by the pace of technological change, while the developing countries can employ both the changes in new technologies and the increasing application of existing technologies to speed their growth.

The United States has had a hard time sustaining rapid productivity growth in the last generation. From 1960 to 1973, U.S. productivity in manufacturing rose at an average annual rate of 3.2 percent, far less than the 10.3 percent achieved by Japan, 5.8 percent in Germany, the 6.4 percent in France and Italy, and the 4.3 percent posted by Britain. During the 1970s, productivity growth in American manufacturing fell, as it did in most countries. Still, the manufacturing falloff in the U.S. was greater, with the U.S. achieving just 0.9 percent growth compared to the 4 to 6 percent manufacturing productivity of our major competitors and even less than the 1.2 percent growth in an anemic Britain. U.S. productivity picked up some in the 1980s but still lagged far behind that of other industrial nations. The 2.6 percent manufacturing productivity growth in the U.S. since 1979 matches that of Germany but is far less than the 4 to 6 percent growth in Italy, France, Britain, and Japan.[65]

Productivity increases in the advanced countries will be determined by the pace of technological change.

The United States has had a hard time sustaining rapid productivity growth in the last generation.

Industrializing countries can make swift progress by applying known techniques to a production process. According to a Japanese study, in 1958 the United States was more productive than Japan in each of 60 industrial categories studied. In 1963 Japan had achieved superiority in one of the 60; in 1967, in 4, and in 1972, 16.[66]

In manufacturing generally, productivity increased twice as fast in the Asian developing countries as in the developed economies through the 1980s.[67] In the textile industry, productivity increased roughly twice as fast in the developing countries as in the advanced market economies in the 1980s.[68] From 1952 to 1985, for example, manufacturing productivity increased in Taiwan at an annual average rate of seven percent.[69] From 1975 to 1985, manufacturing productivity in Taiwan rose 237 percent, with the highest rates of increase in industries like electric and electronic machinery (316 percent), industrial chemicals (375 percent) and precision machinery (788 percent).[70]

Industrializing countries can make swift progress by applying known techniques to a production process.

From 1975 to 1985, manufacturing productivity rose 216 percent in Singapore.[71] From 1963 to 1982, overall productivity in Korea grew at an average annual rate of 5.3 percent.[72] Korean labor productivity in manufacturing nearly doubled between 1980 and 1986, rising 94 percent and achieving an annual average rate of growth of 11.7 percent.[73] There are no reasons to expect Korean productivity growth to slow to American levels, or American levels to accelerate to Korea's in the near future.

If anything, Korean productivity growth is likely to accelerate. Korean spending on research and development is expected to grow from today's two percent of GNP to five percent in 2001. The current figures for Japan and the United States are three percent. Currently, Korea graduates 32,000 applied science students each year. To keep Korean scientists happy and to encourage Koreans with U.S. training to return, the government has established 16 research institutes where American level salaries are paid.

Even if productivity growth in the developed economies began to outstrip the pace of the developing world, low-wage competition would remain an important factor. Any significant advances in productivity that appear in the developed economies are like to move rapidly to the developing ones today. This is particularly true given the global presence of major manufacturing companies. Such corporations are a principal source of research and productivity improvements; any company developing a new, productivity enhancing technology will wish to use this technology in its own production facilities regardless of their location.

Any significant advances in productivity that appear in the developed economies are like to move rapidly to the developing ones today.

Will Wage Growth Solve the Problem?

If productivity growth in the United States cannot close the unit labor cost gap with developing countries, it remains to ask whether wage growth in developing countries will equalize unit labor costs. If wages rise faster than productivity in developing countries, then their unit labor costs would rise to levels closer to those prevailing in the United States, and the competitive advantage currently enjoyed by low-wage producers would disappear.

In Table 7 above, we saw some evidence of increasing wages in developing countries. While the evidence was mixed, with wages falling relative to those in the United States in Mexico and Brazil, East Asian countries including Singapore and Korea showed healthy wage hikes.

World Bank data comparing earnings and output per employee tell a different, and less hopeful story about East Asian manufacturing (Table 16).[74] While the available data over the last 20 years show increased earnings almost everywhere in East Asia, only in Singapore did employee earnings rise significantly faster than output per employee. In Malaysia, earnings rose marginally faster than output (by 0.05 percent per year) and elsewhere, unit labor costs were falling, even where earnings rose.

If wages rise faster than productivity in developing countries, then their unit labor costs would rise to levels closer to those prevailing in the United States, and the competitive advantage currently enjoyed by low-wage producers would disappear.

Table 16

Real Output and Earnings Growth Per Employee in Manufacturing

	Rates of Growth:	
Country	**Output Per Employee**	**Earnings Per Employee**
Bangladesh	−0.04%	−0.59%
Indonesia	9.20	7.08
Korea	9.11	7.48
Malaysia	2.71	2.75
Philippines	1.25	−1.43
Singapore	2.17	5.18
Thailand	5.77	4.45

Source: World Bank, *World Data Tables, 1988-89 Edition*

The evidence from Latin America is mixed. In Argentina, output rose from 2.2 percent per year from 1971 to 1985, while earnings rose only 4.9 percent. A similar pattern is found in Brazil: earnings there rose 4.2 percent per year from 1967 to 1985 while output per employee only achieved an annual growth rate of 1.4 percent. In Mexico, however, output per employee rose 2.2 percent per year from 1967 to 1985, and earnings fell by .5 percent per year during that period. It is likely that figures for real earnings per employee for Argentina and Brazil declined from 1985 to the present, while output continued to rise.

If we look beyond the manufacturing sector, we find an even bleaker picture in developing countries. According to a study by the ILO, real

wages were falling in 22 of 37 countries in Asia, Latin America and Africa during the 1970s. In the 1980s, real wages were falling in 23 of the countries.[75]

World Bank figures show that from 1965 to 1987, private consumption as a percentage of GDP fell in many developing countries—and it tended to fall faster in rapidly growing economies.[76] Thus in the stagnant or declining low and middle income countries of Sub-Saharan Africa, Latin America, and the Caribbean, the share of private consumption held relatively steady. This was also true among the highly indebted economies. The fall in the share of private consumption in GDP was most marked in the dynamic region of East Asia, where it fell from 63 percent of GDP in 1965 to 53 percent in 1987.

Restraining domestic consumption supports growth in exports.

The data show that the fall in the share of domestic consumption is related to increases in the size of exports of goods and nonfactor services as a percentage of GDP during the same period.

Table 17

Consumption and Exports as Percentage of GDP
Net Change 1965–1987

	Increase (Decrease) in Consumption as Percentage of GDP	Increase (Decrease) in Exports as Percentage of GDP
Bangladesh	7	(4)
Indonesia	(26)	21
Korea	(31)	36
Malaysia	(14)	22
Philippines	6	6
Singapore	(32)	NA
Thailand	(10)	14
Argentina	15	2
Brazil	(2)	1
Mexico	(2)	(1)
Low and Middle Income Countries by Region:		
Sub-Saharan Africa	(1)	2
East Asia	(10)	23
South Asia	(8)	2
Latin America & Caribbean	0	(1)
17 Highly Indebted	0	1

Source: World Bank (1989), pp. 180-181.

Despite a range of variation these figures tend to support the idea that success in restraining domestic consumption supports growth in exports and it would seem that developing countries which permit wages to grow near or above the rate of output growth per employee

are unlikely to succeed on world markets. They will lose their competitive advantage to other countries which are keeping unit labor costs under control.

The evidence, then, appears to indicate that unit labor costs in developing countries have not risen and will not rise sufficiently to diminish their competitive advantage compared to the advanced industrial economies.

There is, however, a certain amount of evidence to support the idea that wage levels in the advanced countries are moving down to close the gap. Table 18 shows that earnings per manufacturing employee in a group of advanced countries has been rising more slowly than output in the last twenty years.

The evidence . . . appears to indicate that unit labor costs in developing countries have not risen and will not rise sufficiently to diminish their competitive advantage.

Table 18

Earnings and Output in Manufacturing Annual Growth Rates[77]

	Rate of Growth:	
	Output Per Employee	**Earnings Per Employee**
Canada	4.29%	2.40%
Germany	4.93	3.41
Italy	4.78	3.52
Japan	7.39	3.09
United States	3.85	0.29

Source: *World Bank Data Tables 1988–89 Edition*

International competitive pressures appear more likely to depress unit labor costs and therefore incomes in advanced countries rather than to permit the extremely rapid growth in developing country wages that could close the cost gap from the other side.

No Limits to Growth

Complacency over the future of competition from low-wage developing economies also rests on a belief that there are certain inherent limits to the effectiveness of low-wage labor and to global assembly. Some point to the wider adoption of Japanese "just in time" inventory methods which, they believe, will place a premium on keeping suppliers close to the points of final assembly. Others have cited the trend toward computerized, totally-automated assembly systems and argue that the unskilled labor that was typically farmed out to developing countries will be eliminated. Others point to rising unit labor costs in the "Four Tigers" and suggest that as these rise, the cost advantage of overseas production will wither away. However, the evidence does not support these hopeful conjectures.

Surveys of manufacturers in the United States and Japan have not shown much evidence of a slowdown in plans to outsource production.

Surveys of manufacturers in the United States and Japan have not shown much evidence of a slowdown in plans to outsource production. In both countries, manufacturers are less interested in outsourcing to high-wage countries, and more interested in locating in low-wage economies.

A 1987 survey of 200 senior U.S. manufacturing executives in 200 large and medium sized manufacturing companies found that 69 percent of the companies had one or more offshore manufacturing sites; 30 percent of the sample had from one to three sites; 39 percent had more than three.[78] From 1980 to 1987, the share of companies outsourcing less than 25 percent of their total manufacturing declined from 65 percent to 56 percent. Fifty-four percent of the executives surveyed believed that there would be more offshore manufacturing in 1992 than in 1987, and only 19 percent believed there would be less. One-fourth of these executives said that moving production offshore was always a factor in their planning, and 44 percent identified labor cost and availability as key factors in closing plant sites.[79] Most existing offshore sites for these companies were located in the high-wage countries, but low-wage countries dominate the list of attractive sites for the 1990s. Table 19 shows this shift.

Table 19

Changes in Offshore Site Preference

	% of Companies With 1 or more Sites in Country In 1987*	% of Companies Identifying Country As Desirable Site for 1990s*
Great Britain	36	7
W. Germany	23	4
Other Western Europe	41	9
Canada	33	
Japan	12	7
Australia and New Zealand	8	
Mexico	28	22
Other South America	16	17
Taiwan	2	13
South Korea	1	23
Philippines	1	
China		15
Malaysia/Singapore		6
Others	8	
Other Asia		13

*Blanks indicate location was not listed separately in the relevant survey.

Source: Hart (1987), pp. 4, 5, 19.

The overwhelming majority of new [offshore] plants will be set up in low-wage countries.

In a 1987 survey of the investment plans of 688 Japanese firms, 297 announced plans to build one or more factories offshore. While both the United States and the EEC were named as future sites by a large number of companies, the overwhelming majority of new plants will be set up in low-wage countries.[80]

Table 20

Investment Plans of 279 Japanese Firms

Country	Number of Companies Selecting
Thailand	97
U.S.	97
China	94
Taiwan	72
Malaysia, Philippines, and Indonesia	50
EEC	45
South Korea	44
Hong Kong	20
Singapore	20
Latin America	16

(Figures include multiple listings by firms planning more than one offshore site.)

Source: Japan China Association on Economy and Trade.[81]

In the last two years, Japanese companies have built 30 plants in the *maquiladora* zone immediately south of the U.S. border, where they have achieved higher rates of productivity than American *maquiladora* facilities. A Sanyo Vice President commented, "If you read the press releases of Japanese firms, they now talk about commitments to manufacturing in 'North America' rather than the United States."[82]

Figures from Thailand's Board of Investment, the agency charged with approving applications from foreigners to invest in Thailand, illustrate the acceleration of offshore siting and foreign investment (Table 21). The number of applications rose by 313 percent; the value by 256 percent.

The belief that Japanese methods of inventory control will slow the offshore siting of industrial facilities is unsupported.

Table 21

Investment Applications to the Thailand Board of Investment
(values of projects include local participation;
numbers in million baht: 1 $U.S. = approximately 25 baht.)

Country of Origin	1986 Applications		1987 Applications	
	Number	Value	Number	Value
Japan	54	14,729.0	204	47,704.6
Taiwan	35	2,869.5	178	14,658.1
Europe	42	16,292.0	110	33,131.2
U.S.	23	14,096.3	58	20,504.0
Hong Kong	17	2,005.9	47	7,043.9
Australia	7	587.4	24	7,387.9
Singapore	10	399.0	36	605.7
Malaysia	9	494.2	13	586.0
Totals	204	51,473.0	638	131,621.4

Source: Christopher Mead, *Southeast Asia High Tech Review* (1988), pp. 5-6

The belief that intensified automation will bring the factories back home is also unfounded.

The belief that Japanese methods of inventory control will slow the offshore siting of industrial facilities is unsupported. And even if such a trend were to develop, it might accelerate the movement of factories to overseas locations near Southeast Asia. For example, Control Data assembles hard disk drives in Singapore, and is considering moving its assembly of thin film heads for hard disks from the United States to more convenient sites in Malaysia.[83]

The belief that intensified automation will bring the factories back home is also unfounded. Susan Walsh Sanderson compared the cost of using high-tech (including roboticized) assembly in the United States to the cost of using low-wage labor in Mexico and Singapore.[84] It was cheaper to use low-tech assembly in Mexico than high-technology techniques in the United States. For factories with an annual output of more than 310,000 units, high-tech U.S. assembly was more economical than low-tech assembly in Singapore. However, Sanderson notes, there is nothing to stop the construction of high-technology factories outside the United States combining the advantages of automated production and low wages. With the concentration of electronics manufacturing in East Asia, such a plant would enjoy significant advantages (proximity to

suppliers and customers) over a high-tech plant located in the United States.

It is often cheaper to build new high-tech facilities in Third World countries. Construction workers, engineers and other employees are paid at lower wage rates than in high-wage countries. The fully computerized POSCO steel plant at Kwangyang was built at a cost of $360 per metric ton of capacity; the "world price" for each metric ton of new capacity is estimated at $1,500.[85] The Kwangyang plant is not simply an asset to Korea's steel export industry. Domestically, Kwangyang delivers steel at $320 per ton for cold rolled steel—the lowest price anywhere in the world.[86] All other products and factories made in Korea incorporating steel have a significant cost advantage. Only 25 percent of POSCO's output goes directly for export, but much of the rest supports the production of other goods for export.

It is often cheaper to build new high-tech facilities in Third World countries.

Conclusion

The evidence presented above paints a dramatic picture about recent developments in world trade. The shift of manufacturing into low-wage countries does not appear, as many have claimed, to be either a trivial or a short-term feature of the world economy. We have shown that unit labor costs in manufacturing are significantly lower in some developing countries than in advanced ones, that few if any industries appear exempt from the pull of low-wage production facilities, that low-wage manufacturing is having a measurable, significant and growing impact on the U.S. balance of trade and that the shift of production to low-wage labor markets is likely to persist into the foreseeable future.

The shift of production to low-wage labor markets is likely to persist into the foreseeable future.

The concluding section of this paper examines what our findings mean both in the light of the traditional theory of international trade, which at first sight our data appear to contradict, and in the implications our findings have for the future of the world economy. We also indicate, at least in general terms, what responses from policy makers make sense in the light of the data presented above.

We believe that the debate over development and trade policy needs to be broadened and, while we acknowledge that some of the views presented below may be speculative and controversial, we put them forward in the hope of stimulating further investigation of the complex issues involved.

The remainder of the paper summarizes our conclusions in terms of four propositions and their meaning.

Unit Labor Costs and The Theory of Trade

■ The persistence of significant across the board unit labor cost differentials between countries is not, as many argue, irreconcilable with the widely accepted and traditional theory of international trade.

The traditional theory of international trade . . . holds that higher productivity will soon be offset by higher wages and that across-the-board differences in unit labor costs between countries cannot persist.

We began our discussion with a citation from Lawrence and Litan maintaining that persistent unit labor cost differentials of the type we have found are theoretically impossible. When Lawrence and Litan argue that international wages and productivity *must* be closely related, they are on solid ground from the standpoint of the traditional theory of international trade. This theory holds that higher productivity will soon be offset by higher wages and that across-the-board differences in unit labor costs between countries cannot persist.[87]

We are not suggesting that the traditional theory of international trade be scrapped, or that it has no application to present circumstances. But the size and persistence of unit labor costs differentials between the advanced and developing countries require an explanation. In our view this lies in the relationship of national labor markets to international trade, and if we are correct, then there is little prospect for the short-term equalization of unit labor costs around the world as the result of market forces.

The traditional theory of international trade holds that while across-the-board unit labor costs cannot persist between countries, different unit labor costs for *particular products* can persist and, indeed, these

differences serve as a basis for the comparative advantages that drive international trade.

The route by which the traditional theory gets from persistent unit labor cost differentials in particular products to a persistent unit labor cost equilibrium between national economies taken as a whole is deceptively simple: it takes the average level of productivity in each country and argues that this determines the average wage level. If a nation's average wage level is too high for its average productivity, demand for its products—and therefore for its workers—will fall, and wages will decline towards the equilibrium level. If its average wage level is too low, then demand for its products will increase to such an extent that new employment opportunities will create a demand for labor sufficient to pull its wage level up to the equilibrium point.

The traditional theory does not take sufficient account of an important difference between advanced and developing economies.

This application of the traditional theory does not take sufficient account of an important difference between advanced and developing economies.[88] Developing economies are known to be "dual economies." That is, a low-productivity "traditional sector" exists side by side with a higher productivity "modern sector."[89] The low-wage, low productivity traditional sector is associated with surplus labor, and this labor surplus holds down wages in the higher productivity modern sector of developing economies.

A casual reading of traditional trade theory would tell us that the dual nature of developing countries should not produce persistent unit labor cost differentials. The equalization of labor costs would take place in all internationally traded goods regardless of whether those goods were produced in the modern or the traditional sector. However, there is an additional complicating factor. Most traditional sector products—handicrafts, services, etc.—are domestically consumed and not internationally traded. That a shoe shine in Rio is cheap by international standards does not contribute to an increase in international demand for Brazilian shoe polishers; dull shod U.S. businessmen do not ship their footgear to Rio. The incomes of Rio's shoe shine boys remain low and continue to depress the wages of Brazilian workers who do produce goods for the international market.

Most traditional sector products are domestically consumed and not internationally traded.

If, as the evidence suggests, developing countries have larger traditional sectors than developed ones, and if the traditional sectors produce goods disproportionately for the domestic market, then we have a theoretical base for the picture that the facts suggest: that there are enduring across the board unit labor cost differentials between advanced and developing countries.

Unit Labor Cost Differentials Are Here for the Long Term

■ Market forces, left to themselves, will only eliminate existing disparities in unit labor costs over a period to be measured in decades or centuries.

Traditional trade theory maintains, and we agree, that in the long run wage and productivity levels will tend to equalize around the world. At some point, the traditional sectors of developing economies would be absorbed into the modern sector—as has already happened in today's

advanced countries. This is, however, likely to be a very long term process. Billions of people in Asia, Africa, and Latin America continue to subsist in the traditional sector. Even on the most optimistic assumptions, it will be a matter of decades and possibly centuries before these people or their grandchildren can be absorbed into the modern sector of the economy.

In the meantime, we can expect the surplus labor of the traditional sector to exert a continuing downward pressure on global wages. Such pressures will be felt not only by high-wage advanced countries, but also by successful NICs. Countries like South Korea, where substantial elements of the traditional sector have been absorbed into the modern sector, and where there are strong pressures on wages to rise to global levels, face competition from other countries with larger traditional sectors. This competitive pressure affects Korean wages in two ways: the lower wages available abroad shift investment away from Korea, diminishing the demand for Korean labor and therefore weakening the economic pressures for higher wages in Korea, while policymakers see a need to maintain the institutional and informal structures in place that, in the past, have limited the bargaining ability of Korean labor.

Market forces, left to themselves, will only eliminate existing disparities in unit labor costs over a period to be measured in decades or centuries.

In addition to the economic consequences of this situation, there are political and social consequences to be considered. Industrialization in what are now the advanced countries was originally a time of labor exploitation and social conflict. Many observers, including many non-Marxists, predicted that such conflict would escalate as the process of industrialization continued. The ability of the economic system to deliver an improving standard of living to working people meant that these societies were able to overcome their social conflicts and achieve a new balance.

If competition from lower wage, less developed countries should impair the abilities of countries like South Korea to achieve the social conditions characteristic of advanced industrial economies, we could well see their histories take a less fortunate turn. In most Western countries the achievement of stable democratic regimes was the product of long and bitter struggles during which the outcome was by no means certain. Progress toward stable, democratic and peaceful regimes in developing countries may depend on the ability of these countries to move smoothly and expeditiously from a low productivity, low-wage economy to a high productivity, high-wage environment.

Progress toward stable, democratic and peaceful regimes in developing countries may depend on the ability of these countries to move smoothly and expeditiously from a low productivity, low-wage economy to a high productivity, high-wage environment.

The Economic Consequences of the Disparities

■ In the meantime, the economic consequences of unit labor cost disparities will be serious for both developed and developing economies without an appropriate response from policymakers.

We believe that the long-term persistence of these unit labor cost differentials will have a profound and dangerous effect on the world economy. On the one hand, they will distort investment and trade flows. Too much manufacturing will move away from high-wage countries, leading to unacceptable balance of trade problems for countries that keep their markets open to manufactured products from low unit

labor cost countries. More ominously still, the effect of low-wage manufacturing on global purchasing power is likely to present serious obstacles to global economic performance.

International trade theory holds that free trade between countries will lead to the most efficient utilization of resources and maximize the incomes of all participants in the system. If one country suffers from a chronic balance of payment deficit, its currency or its wage levels will fall until its goods are once again competitive in world markets, and its trade accounts are rebalanced. Indeed, something very like this happened in the 1980s as the dollar fell against European currencies and our trade with Europe moved toward balance.

But when, as in the case of developing countries, there are long-term factors militating against trade adjustment, the process of balancing trade is more complicated. Our trade with developing countries is likely to prove resistant to conventional remedies and it is far from clear that market forces, left to themselves, would bring about an optimal use of resources as long as developing country wages remain stuck at low levels.

Persistent differentials in unit labor cost levels, and a continuing drag on modern sector wages from the traditional sector of the world economy raise an additional specter: international economic stagnation.

If workers in the engine plant in Mexico studied by Shaiken and Herzenberg earn only a fraction of the wages of Ford workers in Detroit, but produce essentially as many engines as the Detroiters, then potentially we have a problem that Henry Ford would understand: too many Fords, not enough customers.

Furthermore, to the extent that low wages in developing countries slow the rise of wages and employment in advanced countries, then the danger of international economic stagnation grows.

Persistent differentials in unit labor cost levels and a continuing drag on . . . wages raise an additional specter: international economic stagnation.

The Need For International Trade and Development Policy

■ A coordinated, international effort to overcome the problems associated with low-wage production is required to defend the system of open trade which, overall, best serves the interests of both developing and developed nations.

We have made the broad case for a new international trade and development policy in other forums.[30] Essentially, we have argued that low wages in developing countries contribute to a weakness of global demand and that this weakness in turn undermines political support for the multilateral free trade system and creates difficult obstacles for the GATT process of reducing barriers to trade. The increasing reliance on export-led growth strategies by developing countries without compensating policies to maintain global demand is in our view generating pressures that ultimately will close the markets on which export-oriented economies depend.

Here we would like simply to draw attention to two elements in this trade and development approach that have particular bearing on the

Low wages in developing countries contribute to a weakness of global demand and . . . this weakness in turn undermines political support for the multilateral free trade system.

question of unit labor cost disparities: the general question of international production standards for internationally traded goods and the specific question of international labor rights in developing economies.

We have argued in the past that the adoption of generally accepted international standards of production for internationally traded goods is a necessary component of realistic strategies to reduce barriers to trade. As the experience of the European Community attests, greater economic integration requires increasing regulatory coordination among the economies involved. Progress along these lines will be an essential component of further trade liberalization initiatives.

Greater economic integration requires increasing regulatory coordination among the economies involved.

The findings presented above strengthen the case for internationally agreed upon labor standards in the production of goods for international trade. While no absolute separation of the traditional and domestically oriented sector from the modern, international sector of a developing economy is either possible or desireable, the extent to which international production standards can be applied to the production of traded goods is the extent to which market mechanisms will be free to bring about the optimal use of resources.

Regulations on standards for the relation of wages to productivity, workplace safety, social insurance, and similar concerns will contribute to trade liberalization and can be linked to the reduction of barriers in industries critical to the growth of developing economies. The alternative, unfortunately, would almost inevitably be a greater reliance on protection on the part of advanced economies with correspondingly fewer opportunities for growth in the developing world.

The alternative . . . would almost inevitably be a greater reliance on protection on the part of advanced economies.

The question of the defense of international labor rights assumes a similar importance in the light of our findings. The phrase "international labor rights" refers to worker rights recognized in international law, whether in widely ratified conventions of the International Labour Organization or in such statements as the Universal Declaration of Human Rights. As was the case until recently for many of the human rights ostensibly recognized in and protected by international law, worker rights have been the object of more lip service than of serious enforcement.

There are signs that this neglect is ending. The United States Congress has shown new interest in the subject, requiring the State Department to include worker rights in its surveys of human rights around the world. The observance of certain key worker rights has been made a condition for the receipt of certain bilateral trade privileges and foreign aid.

Beyond the United States, international worker rights have also been the object of renewed and sympathetic attention. In the European community, the question of the social component of European integration has moved to the center stage. In developing countries the economic benefits of worker rights are becoming more widely appreciated. The former finance minister of South Korea, for example, has written of the importance of higher wages and improved labor-management relations as not merely a political necessity, but as an important element in Korea's continued growth.[9]

A greater observance in the modern sector of developing economies of the principle internationally recognized worker rights—the prohibition of child labor, the adoption of a minimum wage appropriate to a nation's level of development, the right of workers to organize and to bargain collectively—would help limit the trade-distorting effects of their traditional sectors. Strong and free trade union movements in developing countries would serve, in our view, as an important element of a stable international trading regime.

Overall, we believe that continued economic growth in a liberal trading order requires increased consumption and higher real wages among the newly productive workers of the developing world. That "balanced growth" of this kind would create new export markets for industries in the advanced countries while expediting growth in the developing world seems clear. The alternative—continued reliance on export-led growth in developing countries and increasing sentiment for protection in the advanced industrial companies—serves the interests of no one and exposes all countries to serious risks.

Continued economic growth in a liberal trading order requires increased consumption and higher real wages among the newly productive workers of the developing world.

Endnotes

[1] Price (1984, p. 134).

[2] Christopher Mead, *Southeast Asia High Tech Review* (1988, p. 16).

[3] Christopher Mead, *Southeast Asia High Tech Review* (1988, p. 17).

[4] Price (1984, p. 134).

[5] To the advantages cited above should be added others. Japan, the first of the export-led economies, had enormous reservoirs of technical skill in a population that, until the wartime destruction, had maintained one of the most advanced industrial economies of the world. Taiwan and Korea both benefitted from a physical infrastructure left behind by Japanese colonialism and from a social infrastructure dominated by Confucian values. All three countries were the beneficiaries of unusually high levels of American spending—as aid, and as the result of the stationing of American forces. Taiwan, which received less benefits from these sources than Japan and Korea, was blessed in having in its possession the entire Chinese gold reserve, which Chiang thoughtfully evacuated in 1949. Thus, all of the initial export-led success stories benefitted from a combination of factors; building on their experiences, other, less fortunate countries have been able to repeat their success.

[6] Liang and Liang (1988, p. 52).

[7] Bennett (1988, p. 82).

[8] Koh (1988, p. 96).

[9] Carcaterra and Farrell (1988, pp. 149–150).

[10] Dunny and Cantwell (1987, p. 529).

[11] Dunny and Cantwell (1987, p. 558).

[12] Dunny and Cantwell (1987, p. 576).

[13] Dunny and Cantwell (1987, p. 20).

[14] World Bank Development Report (1987, p. 14).

[15] Dunny and Cantwell (1987, p. 532).

[16] Dunny and Cantwell (1987, p. 532).

[17] U.S. International Trade Commission (1987b, pp. 12–2).

[18] U.S. International Trade Commission (1987a, pp. 10–17).

[19] Christopher Mead, *Southeast Asia High Tech Review* (1988a, p. 1).

[20] Christopher Mead, *Southeast Asia High Tech Review* (1988a, p. 10).

[21] Christopher Mead, *Southeast Asia High Tech Review* (1988a, p. 3).

[22] This group consists of countries where manufactures comprise more than 30 percent of exports of goods and services: Brazil, China, Hong Kong, Hungary, India, Israel, Poland, Portugal, Republic of Korea, Romania, Singapore, and Yugoslavia.

[23] World Bank Development Report (1987, p. 47).

[24] World Bank Development Report (1987, p. 46).

[25] Sanderson, *et al.* (1986, p. 132).

[26] Sanderson, *et al.* (1986, p. 133).

[27] Mishel and Stout (1989, Table 6).

[28] *The Economist* (1987c, pp. 47,115).

[29] Christopher Mead, *Japan High Tech Review* (p. 2).

[30] Christopher Mead, *Korea High Tech Review* (1987, p. 1).

[31] U.S. International Trade Commission (1987b, p. 4:4).

[32] U.S. International Trade Commission (1987b, p. 4:23).

[33] Shaiken and Herzenberg (1987, p. 7).

[34] U.S. International Trade Commission (1987b, pp. 4:27–4:28).

[35] Shaiken and Herzenberg (1987, p. 7).

[36] Christopher Mead, *Emerging Automotive Industries Review* (1987, p. 8).

[37] Shaiken and Herzenberg (1987, p. 9).

[38] U.S. International Trade Commission (1987b, p. 4–33).

[39] Ungphakorn (1988, p. 24).

[40] Christopher Mead, *Southeast Asia High Tech Review* (1988c, pp. 1–2).

[41] U.S. International Trade Commission (1988a, pp. 10–56, 10–70).

[42] Christopher Mead, *Southeast Asia High Tech Review* (1988a, p. 9).

[43] Christopher Mead, *Southeast Asia High Tech Review* (1988a, p. 15).

[44] Carcaterra and Farrell (1988, p. 147).

[45] Christopher Mead, *Southeast Asia High Tech Review* (1988a, p. 15).

[46] Lawrence and Litan (1987, p. 290).

[47] U.S. International Trade Commission (1987a, p. 12-3).

[48] U.S. International Trade Commission (1988b, p. 12-8).

[49] U.S. International Trade Commission (1988b, p. 12-10).

[50] U.S. International Trade Commission (1988b, p. 12-10).

[51] Mefford (1986, pp. 63–90). Mefford did, however, find that plants located in Latin America were somewhat less productive for reasons that could not be fully accounted for by the non-geographic variables included in this study.

[52] Shaiken (1988, p. 8).

[53] *General Industrial Statistics 1985*. See country tables for nations cited in text and tables.

[54] Starobin (1985).

[55] Marshall (1988, p. 185).

[56] Hooper and Larin (1989).

[57] Salowsky (1986).

[58] Bradshaw (1988, p. 4). It is also illegal to strike in Taiwan.

[59] Werner, unpublished.

[60] Boyden and Hudsen (p. 7).

[61] The subject is so vast that no single source fully documents it. See *Trade's Hidden Costs: Worker Rights in a Changing World Economy*. International Labor Rights Education and Research Fund for an introduction. (Washington, DC: 1988.)

[62] Americas Watch (1988, p. 14).

[63] Bradshaw (1988, p. 4).

[64] Christopher Mead, *Southeast Asia High Tech Review* (September 1988, p. 19).

[65] The manufacturing productivity data is in Mishel (1988) and BLS (1989).

[66] Yukizawa (1977).

[67] United Nations (1987, pp. 472–477).

[68] U.S. International Trade Commission (1987a, p. 2:20).

[69] Liang and Liang (1988, p. 59).

[70] Directorate (1988, pp. 168–169).

[71] Singapore (1987, p. 96).

[72] *Global Competition* (1985, p. 111).

[73] National Bureau of Statistics, Korea (1987, p. 82).

[74] Bibliographical Data: Source is *World Tables 1988–89 Edition: from the Data files of the World Bank*. Published for The World Bank by The Johns Hopkins University Press, Baltimore and London. 1989. Note on data used in tables: Starting Date for data series is 1967 for following countries: Bangladesh, South Korea, Singapore, Brazil, Canada, Germany, Italy, and the U.S. Starting date is 1968 for Philippines and the UK; 1970 for Indonesia, Malaysia, Mexico, Thailand, and Mexico; 1971 for Argentina. Most recent data is from 1985 except for the following: 1983, Malaysia; 1984, Philippines.

Calculation of growth rates based on Lotus function @RATE, which calculates the rate of interest using a future value (latest number in data series), present value (earliest number), and term (latest year minus the earliest year for each country).

[75] International Labor Organization (1987, p. 99).

[76] World Bank (1989, p. 180-81). Note new reference: *World Development Report 1989: Financial Systems and Development World Development Indicators*. World Bank, 1989. Oxford University Press.

[77] Except for Japan and the UK, all data series begin in 1967 and end in 1985. Japanese data covers the period 1970–85; British from 1968 to 1985.

[78] Hart (1987).

[79] Hart (1987, pp. 7, 11).

[80] Japan-China Association on Economy and Trade (1987).

[81] Cited in *Japan High Tech Review*, Vol V; No 4. April, 1988. Page 4.

[82] Ennis (1988, p. 20).

[83] Christopher Mead, ed., *Southeast Asia High Tech Review* (1988, p. 3).

[84] Sanderson, *et al.* (p. 132).

[85] U.S. International Trade Commission (1988b, pp. 10–2, 10–4).

[86] "Stand Tall: A Survey of South Korea." *Economist* (1988, p. 16).

[87] See, e.g., Krugman and Obstfeld (1988), chapter 2.

[88] I am indebted to Robert Blecker for suggesting this argument.

[89] See, for example, Lewis (1978) and Todaro (1979).

[90] Walter Mead, *Mortal Splendor* (1987) and "The United States and the World Economy" (Summer 1989).

[91] Sakong (1989, p. 62).

Bibliography

Americas Watch. *Labor Rights in El Salvador*. New York: Americas Watch, March 1988.

Armella, Pedro Aspe. "Mexico: Growth With Structural Change in the Presence of External Shocks." In Bradshaw (1988a).

Bachar, Edmar Lisboa. "Brazilian-Based Reflections: Debt, Stabilization, Growth." In Bradshaw (1988a).

Bennett, John T. "The Korean Perspective on Trade Relations With the U.S." In Bradshaw (1988a).

Bernolak, Imre. "Productivity Analysis and Projections in Selected Key Areas." Integrated report of an Asian Productivity Organization survey in thirteen countries in Asia, 1984–1986. Unpublished.

Boyden, Jo, and Andy Hudson. *Children: Rights and Responsibilities*. London: Minority Rights Group Ltd. Report No. 69.

Bradshaw, Thornton. "Coping With the NICs." 1988b. In Bradshaw (1988a).

Bradshaw, Burton, Cooper, and Hormats, Ed., *America's New Competitors*. Cambridge, MA: Ballinger Publishing Company, 1988a.

Bureau of Labor Statistics. "International Comparisons of Hourly Compensation Costs for Production Workers in Manufacturing, 1975–1986." Report #745, September 1987.

Bureau of Labor Statistics. "International Comparisons of Manufacturing Productivity and Labor Cost Trends, 1988." June 1989.

Bureau of Labor Statistics. Publication USDL 88-259. Washington, DC: May, 1988.

Carcaterra, Rose, and Judy Farrell. "The NICs: Profiles of Economic Growth." In Bradshaw (1988a).

Directorate-General of Budget, Accounting, and Statistics; Republic of China. "Indexes of Labor Productivity in Manufacturing." In *Statistical Yearbook of the Republic of China: 1987*. 1988.

Dunny, John, and John Cantwell. *IRM Directory of Statistics of International Investment and Production*. Institute for Research and Information on Multinationals. Basingstroke, UK: Macmillan, 1987.

Economist. September 26, 1987.

Economist. September 28, 1987. Financial Indicators.

Economist. October 3, 1987. p. 115.

Ennis, Peter. "Japan Discovers Mexico." *Tokyo Business Today*. April, 1988.

Global Competition: The New Reality. Report of the President's Commission on Industrial Competitiveness. Washington, DC: 1985.

Hart, Peter D., Peter D. Hart Research Associates, Inc. A Survey of Attitudes Among U.S. Manufacturers." Washington, DC: August, 1987.

Hooper, Peter, and Kathyrn A. Larin. "International Comparisons of Labor Costs in Manufacturing". International Finance Discussion Papers, Federal Reserve Board, Number 330, August 1988.

"Inflation Fears Cause Inertia." *Financial Times*. Special IMF Section on the World Economy. September 28, 1987, p. vi.

International Labor Organization. *World Labor Report 3*. Geneva, 1987.

International Monetary Fund. *Direction of Trade Statistics*. Yearbook 1987. National Data Tables. Washington, DC: 1987.

Koh, Tommy. "The Scene in Singapore." In Bradshaw (1988a).

Lawrence, Robert Z., and Robert E. Litan. "Why Protectionism Doesn't Pay." *The Harvard Business Review*. Vol. 65, No. 3. May–June 1987.

Lewis, W. Arthur. *The Evolution of the International Economic Order*. Princeton, NJ: Princeton University Press, 1978.

Liang, Kuo-Shu, and Ching-ing Liang. "Trade Strategy and Industrial Policy in Taiwan." In Bradshaw (1988a).

McMillion, Charles D. "The Global Economy Requires Greater U.S. Productivity." In Howard Disbury, ed., *The Global Economy: Today, Tomorrow and the Transition*. Bethesda, MD: World Future Society, 1986.

Marshall, Ray. "Jobs: The Shifting Structure of Global Employment." In John K. Sewall and Stuart K. Tucker, eds., *Growth, Exports, and Jobs in a Changing World Economy: Agenda 1988*. New Brunswick, NJ: Transaction Books, Rutgers University, 1988.

Mead, Christopher, ed. *Emerging Automotive Industries Review*. Vol. I, No. 1, June 1987.

Mead, Christopher, ed. *Japan High Tech Review*. Volume IV, No. 9.

Mead, Christopher, ed. *Korea High Tech Review*. Vol. II, No. 1. January 1987.

Mead, Christopher, ed. *Southeast Asia High Tech Review*. Phoenix, AZ: Mead Ventures, November 1988.

Mead, Walter. *Mortal Splendor*. Boston: Houghton Mifflin Company, 1987.

Mead, Walter. "The United States and the World Economy." Reprinted from the *World Policy Journal*. New York: World Policy Institute, Summer 1989.

Mefford, Robert. "Determinants of Productivity in International Manufacturing." *Journal of International Business Studies*. Spring 1986. pp. 63–90.

Mishel, Lawrence, and Sharon Stout. "Manufacturing Imports from Developing Countries: A Comparison of U.S., Japanese, and European Trade." Paper presented at conference on "Global Imbalances: Alternative Perspectives on the International Economy," at American University, May 1989.

National Bureau of Statistics, Economic Planning Board, Republic of Korea. *Korean Statistical Yearbook 1987*.

Ohmae, Kenichi. "Myths About Trade." *New Perspectives Quarterly*. Fall 1987.

Price, Lee. "Growing Problems for American Workers in International Trade." In Thomas A. Kochan, ed., *Challenges and Choices Facing American Labor*. Cambridge: MIT Press, 1984.

Price, Lee. "Trade Problems and Policy From a U.S. Labor Perspective." NBER Conference Report. *Current U.S. Trade Policy: Analysis, Agenda, and Administration*. Cambridge, MA. 1986.

"The Productivity Paradox." *Businessweek*. June 6, 1988.

Sakong, Il. "Korea is not a NIC." *International Economy*. July/ August 1989.

Salowsky, Heinz, Dr. *Arbeitskosten in Fernost*, study conducted for the Institut der deutschen Wirtshaft. Translated into French and published by l'Union des Industries Metallurgies et Minieres. May 1986.

Sanderson, Susan Walsh, *et al*. "Impacts of Computer-Aided Manufacturing on Offshore Assembly and Future Manufacturing Locations." *Regional Studies*. Vol. 21, No. 2.

Shaiken, Harley. "Wages, Productivity, and Trade: The Auto Industry in Mexico, Canada, and the United States." Presented at Allied Social Science Associations Annual Meeting, New York, December, 1988.

Shaiken, Harley, and Steven Herzenberg. *Automation and Global Production: Automobile Engine Production in Mexico, the United States and Canada*. San Diego: Center for U.S. Mexican Studies, University of California, 1987.

Singapore Department of Statistics. "Selected Ratios of Principal Manufacturing Statistics." In *Yearbook of Statistics 1985/86*. Singapore: 1987.

Smith, Adam. *The Wealth of Nations*. Book I, Chapter X, Part II. Modern Library Edition.

"Spinning and Weaver Labor Cost Comparisons, Spring 1987." New York and Brussells: Weber International Management Consultants, unpublished.

"Stand Tall: A Survey of South Korea." *Economist*. May 27, 1988, p. 16.

Starobin, Herman. (International Ladies Garment Workers Union.) Statement to the Senate Finance Committee, November 20, 1985.

Todaro, Peter. *Economic Development in the Third World*. Fourth edition. White Plains, NY: Longman Inc., 1989.

Ungphakorn, Peter. "Japanese Eye Thailand Investments." *Tokyo Business Today*. April 1988, p. 24.

The United Nations, Statistical Office of. *Industrial Statistics Yearbook 1985. Vol. I General Industrial Statistics.* United Nations Department of International, Economic, and Social Affairs. New York, 1987.

U.S. International Trade Commission. *U.S. Global Competitiveness: The U.S. Textile Mill Industry*. Publication 2048. Washington, DC: USITC, December 1987a.

U.S. International Trade Commission. *U.S. Global Competitiveness: The U.S. Automotive Parts Industry: Report to the Committee on Finance, U.S. Senate, Investigation No. 332-231*. USITC Publication 2037. Washington, DC. December 1987b.

U.S. International Trade Commission. *U.S. Global Competitiveness: Optical Fibers, Technology and Equipment*. Publication 2054. Washington, DC: January 1988a.

U.S. International Trade Commission. *U.S. Global Competitiveness: Steel Sheet and Strip Industry*. Publication 2050. Washington, DC: January 1988b.

Wall Street Journal. March 9, 1987.

World Bank, *World Development Report: 1987*. New York: Oxford University Press, 1987.

World Bank, *World Development Report: 1988*. New York: Oxford University Press, 1988.

World Bank, *World Development Report: 1989*. New York: Oxford University Press, 1989.

World Outlook, 1987. The Economist Intelligence Unit.

Yukizawa, Kenzo. "Relative Productivity of Labor in American and Japanese Industry and Its Change, 1958–1972." Published as Discussion Paper No. 112 by the Kyoto Institute of Economic Research, Kyoto University, July 1977.

The Economic Policy Institute was founded in 1986 by a group of economic policy experts which includes Barry Bluestone, Robert Kuttner, Ray Marshall, Robert Reich, Lester Thurow, and EPI President Jeff Faux. The goal of the Institute is to encourage scholarship on a variety of economic issues and to broaden the public debate about strategies to achieve a prosperous and fair economy.

RECENT PUBLICATIONS

EPI STUDY SERIES:

Flying Blind: The Failure of Airline Deregulation
By Paul Stephen Dempsey — **$8.00**

Modernizing Manufacturing: New Policies to Build Industrial Extension Services
By Philip Shapira — **$8.00**

Are Americans on a Consumption Binge? The Evidence Reconsidered
By Robert A. Blecker — **$8.00**

The Low-Wage Challenge to Global Growth: The Labor Cost—Productivity Imbalance in Newly Industrialized Countries
By Walter Russell Mead — **$8.00**

Capital Flight and the Latin American Debt Crisis
By Manuel Pastor, Jr. — **$8.00**

Shortchanging the Workforce: The Job Training Partnership Act and the Overselling of Privatized Training
By John D. Donahue — **$8.00**

Managed Trade and Economic Sovereignty
By Robert Kuttner — **$8.00**

The Emperor's New Clothes: Transit Privatization and Public Policy
By Elliott D. Sclar, K. H. Schaeffer, Robert Brandwein — **$8.00**

Telecommunications Policy, High Definition Television, and U.S. Competitiveness
By Robert B. Cohen and Kenneth Donow — **$8.00**

The Consumer Electronics Industry and the Future of American Manufacturing: How the U.S. Lost the Lead and Why We Must Get Back in the Game
By Susan Walsh Sanderson — **$8.00**

Keeping Jobs in Fashion: Alternatives to the Euthanasia of the U.S. Apparel Industry
By Richard Rothstein — **$8.00**

Job Displacement and the Rural Worker
By Michael Podgursky — **$8.00**

Beyond Free Trade and Protectionism: The Public Interest in a U.S. Auto Policy
By Daniel Luria — **$8.00**

A Progressive Answer to the Fiscal Deficit
By Arne Anderson — **$8.00**

Strengthening the Progressive Income Tax: The Responsible Answer to America's Budget Problem
By Richard A. Musgrave — **$5.00**

Toward a High-Wage, High-Productivity Service Sector
By Lester Thurow (with Background Paper by Louise Waldstein) — **$5.00**

Workforce Policies for the 1990s
By Ray Marshall and Paul Osterman — **$5.00**

The State of Working America
By Lawrence Mishel and Jaqueline Simon — **$5.00**

Manufacturing Numbers: How Inaccurate Statistics Conceal U.S. Industrial Decline
By Lawrence Mishel — **$5.00**

Prisons for Profit: Public Justice, Private Interests
By John Donahue — **$4.00**

The Limits of Privatization
By Paul Starr — **$3.00**

Economic Competitiveness: The States Take the Lead
By David Osborne — **$4.00**

No Longer Leading: A Scorecard on U.S. Economic Performance
By Lucy Gorham — **$4.00**

The Austerity Trap and the Growth Alternative
By Jeff Faux — **$3.00**

EPI SEMINAR SERIES:

Macroeconomic Policy — **$8.00**

Declining American Incomes and Living Standards
By Frank Levy, Barry Bluestone, Lester Thurow, Ralph Whitehead Jr., and Jeff Faux — **$4.00**

EPI WORKING PAPER SERIES:

No. 101
Better Jobs or Working Longer for Less
By Lawrence Mishel — **$4.00**

No. 102
Trading Away Jobs: The Effects of the U.S. Merchandise Trade Deficit on Employment
By Faye Duchin and Glenn-Marie Lange — **$4.00**

No. 103
Family Incomes in the 1980s: New Pressure on Wives, Husbands, and Young Adults
By Stephen Rose and David Fasenfest — **$4.00**

EPI BRIEFING PAPER SERIES:

Shortchanging Education: How U.S. Spending on Grades K–12 Lags Behind Other Industrial Nations
By M. Edith Rasell and Lawrence Mishel — **$2.00**

Scapegoating Rent Control: Masking the Causes of Homelessness
By Peter Dreier, *et al.* — **$2.00**

The Consequences of Failing to Develop a Strong HDTV Industry in the U.S.
By Robert Cohen — **$2.00**

False Fears of Wage Led Inflation
By Wendy Rayack — **$2.00**

Advance Notice of Plant Closings: Benefits Outweigh the Costs
By Lawrence Mishel — **$2.00**

Getting Rid of the Trade Deficit: A Cheaper Dollar Is Not Enough
By Jeff Faux — **$2.00**

Reducing the Deficits: Send the Bill to Those Who Went to the Party
By Jeff Faux — **$2.00**

Increasing the Minimum Wage—The Macroeconomic Impact
By F. Gerard Adams — **$2.00**

Competitiveness and Balanced Budgets
By Jeff Faux — **$2.00**

Family Incomes in Trouble
By EPI Staff — **$2.00**

High Interest Rates: It's Not Just the Deficit
By Richard Medley — **$2.00**

Economic Policy Institute

1730 Rhode Island Ave., NW, Suite 812, Washington, D.C. 20036
(202) 775-8810